

Title (en)  
Pro-urokinase mutants

Title (de)  
Mutanten der Pro-urokinase

Title (fr)  
Pro-urokinases obtenues par mutation

Publication  
**EP 1361276 A1 20031112 (EN)**

Application  
**EP 03009709 A 19940628**

Priority  

- EP 94922037 A 19940628
- US 8716393 A 19930702

Abstract (en)

The invention relates to thrombolytically active pro-urokinase (pro-UK) mutants comprising the amino acid sequence of native pro-UK, but including a mutation which causes the pro-UK mutants to induce less fibrinogenolysis and non-specific plasminogen activation than native pro-UK, to have at least a 10-fold lower intrinsic activity than native pro-UK, and to have substantially the same fibrin promotion and thrombolytic activity after plasmin activation compared to native pro-UK when administered to a patient. The figure depicts the flexible loop (amino acids 297-313), in which a substitution occurs. <IMAGE>

IPC 1-7  
**C12N 15/57; C12N 9/72**

IPC 8 full level

**C12N 15/09** (2006.01); **A61K 38/46** (2006.01); **A61P 7/02** (2006.01); **C07K 14/745** (2006.01); **C12N 1/15** (2006.01); **C12N 1/19** (2006.01); **C12N 1/21** (2006.01); **C12N 5/10** (2006.01); **C12N 9/72** (2006.01); **C12N 15/57** (2006.01); **A61K 38/00** (2006.01); **C12R 1/91** (2006.01)

CPC (source: EP US)

**A61P 7/02** (2018.01 - EP); **C12N 9/6459** (2013.01 - EP US); **C12N 9/6462** (2013.01 - EP US); **C12Y 304/21069** (2013.01 - EP US); **C12Y 304/21073** (2013.01 - EP US); **A61K 38/00** (2013.01 - EP US)

Citation (search report)

- [Y] US 5108901 A 19920428 - ANDERSON STEPHEN [US], et al
- [A] EP 0387380 A1 19900919 - BEHRINGWERKE AG [DE]
- [A] WO 8907641 A1 19890824 - GENZYME CORP [US]
- [Y] HARRIS T J R: "SECOND-GENERATION PLASMINOGEN ACTIVATORS", PROTEIN ENGINEERING, OXFORD UNIVERSITY PRESS, SURREY, GB, vol. 1, no. 6, 1 December 1987 (1987-12-01), pages 449 - 458, XP000005247, ISSN: 0269-2139
- [PX] CHEMICAL ABSTRACTS, vol. 121, no. 17, 24 October 1994, Columbus, Ohio, US; abstract no. 197128, UESHIMA, S. ET AL: "Expression and characterization of clustered charge-to-alanine mutants of low Mr single-chain urokinase -type plasminogen activator" XP002032187 & THROMB. HAEMOSTASIS (1994), 71(1), 134-40 CODEN: THHADQ;ISSN: 0340-6245, January 1994 (1994-01-01)

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